

**To:** Skophammer, Stephanie[SKOPHAMMER.STEPHANIE@EPA.GOV]  
**From:** Johnson, Kathleen  
**Sent:** Thur 9/11/2014 4:16:04 PM  
**Subject:** RE: page citations for operational constraints re: wq degradation

Cool. thanks!

Kathleen H. Johnson

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**From:** Skophammer, Stephanie  
**Sent:** Thursday, September 11, 2014 8:12 AM  
**To:** Johnson, Kathleen  
**Cc:** Vendlinski, Tim; Hagler, Tom; Goforth, Kathleen; Hanf, Lisa; Foresman, Erin  
**Subject:** page citations for operational constraints re: wq degradation

Kathleen-

Here is the language (in italics) that caused us heartburn. Sorry it's a bit long, but I thought it best to quote their own document.

“Relative to the Existing Conditions, the modeled increased chloride concentrations and degradation in the western Delta under all of the H1-H4 scenarios could further contribute, at measurable levels (i.e. over a doubling of concentration) to the existing 303(d) listed impairment due to chloride in Suisun Marsh for the protection of fish and wildlife... While mitigation measures to reduce these water quality effects in affected water bodies to less than significant levels are not available, implementation of Mitigation Measure WQ-7 is recommended to

attempt to reduce the effect that increased chloride concentrations may have on Delta beneficial uses” (p. 8-429).

**WQ-7: Conduct Additional Evaluation and Modeling of Increased Chloride Levels Following Initial Operations of CM1**

“Following commencement of initial operations of CM1, the BDCP proponents will conduct additional evaluations described herein, and develop additional modeling (as necessary), to define the extent to which modified operations could reduce or eliminate the additional exceedances of the 250 mg/L Bay-Delta WQCP objective for chloride currently modeled to occur under Alternative 4. *If sufficient operational flexibility to offset chloride increases is not feasible under Alternative 4 operations, achieving chloride reduction pursuant to this mitigation measure would not be feasible under this Alternative*” (p. 8-430).

The same language exists for EC on page 8-441.

And- for the other topic we discussed, much to my surprise, I actually cannot find a technical analysis of how much water is lost to evaporation on the California aqueduct. Most of the work is focused on reservoirs (the Israelis have developed technologies like chemical films to slow evaporation, etc.) and apparently the evap. rate equations for reservoirs are not applicable to canals mostly due to wind speed coefficients. I’ll keep digging because I’m certainly curious, but for now, I don’t have an answer!

-Stephanie

Stephanie Skophammer

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